

## ON THE NAMES IN FRASER'S 1813 CATALOGUE

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The 1813 Fraser's Catalogue (essentially accurately reprinted in Greene, 1890) and fully entitled "*A Catalogue of New and Interesting Plants, Collected in Upper Louisiana and Principally on the River Missouri, North America,*" which was published prior to August 1813, is known to nearly every botanist who has had the privilege of working with the names of Thomas Nuttall, the famous English taxonomist who made his greatest contributions in this country as a botanist, ornithologist, and explorer. This small document has been the source of controversy, neglect, and dispute for as many years as it has been in existence. Not only is its author questioned, its very nature as a place of publication for the species that appear in it is doubted by some.

Contrary to the beliefs of some, the author must have been Thomas Nuttall. The interested reader on this subject is invited to refer to the series of arguments presented by Shinnars (1949, 1955, 1956) for Nuttall not being the author and the Catalogue as an invalid source of publication; Graustein's (1956) contentions that Nuttall was the author but that he considered the species not validly published because of an agreement with his sponsor, Benjamin Smith Barton of Philadelphia, not to publish any new species without Barton's consent; and Cronquist, Keck, and Maguire (1956) who believe that Nuttall was the author and that the Catalogue is a valid place of publication.

It has been common knowledge that Nuttall was at least associated with the names found in the Catalogue. Pennell (1936) and Graustein (1967) point out that he was in England and associated with the Fraser Brothers' Nursery at the time of publication. From Nuttall's two subsequent publications (1817, 1818) which followed shortly after the Catalogue, we know that he considered at least some of the

names as his own. Several of the early authors attributed the names in the Catalogue to Nuttall, and they certainly could have asked Nuttall if they had any doubt as to who the author was. Pennell (1936) gives the impression that Nuttall was a rather shy and inhibited person. It would seem out of character for a man of such temperament to assume responsibility for the names in Fraser's Catalogue if he was not in any way responsible for them. It is inconceivable to me that someone else could have assigned names to Nuttall's own collection without Nuttall stating this fact later. If Nuttall was not associated with the entities, why should he later accept some of them as his unless he actually had given the names to the Fraser Brothers, helped someone who was employed by them to prepare the Catalogue, or perhaps have written the text himself. It should be noted here, however, that I do not say that Nuttall was the author of the paper, although Greene (1890) suggests this after seeing the copy of the Catalogue in Philadelphia. What I do contend is that Nuttall is the author of the names in the paper, and thus, as provided by the International Code (1966), the species should be cited as "Nutt. in Fras."

Shinners (1956) goes to great length to show that several of the names in Fraser's Catalogue were not claimed by Nuttall in his later publications, and while this is true, I suspect that it was for reasons other than those given by Shinners. Some species were found to have been adequately described between 1813 and 1818 with names acceptable to Nuttall, but for those that were not, he used his own names that he had published in the Fraser's Catalogue. Nuttall occasionally cited only "Fraser's Catalogue" and did not give himself credit for the name. Shinners uses this argument to show that Nuttall was not the author. The species with which I am most familiar that was published in the Catalogue is *Eriogonum flavum*. The name is credited to "Fras. Catal. 1813" and not starred as a new species in Nuttall's 1818 book, *The Genera of North American Plants*, and for this reason, Shinners suggested that Nuttall did not consider this species as his. Nothing is further from

the truth. In a detailed paper on this species in particular, and the genus *Eriogonum* in general, which Nuttall published in 1817, he makes a point of stating that he published the name *E. flavum* in Fraser's Catalogue. The reason why Nuttall simply stated "Fras. Catal. 1813." instead of "T. N. in Fras. Catal. 1813.", as he sometimes did, was probably to save space. To say that Nuttall was not the author of Fraser's Catalogue I believe is on more tenuous bases than to say that he was indeed the sole author. As no one else has come along to claim authorship of the species published in the list, this, I believe, proves the point that only Nuttall could have given the names to his own collection.

The International Code of Botanical Nomenclature (1966) states in Article 34 that "A name is not validly published . . . when it is not accepted by the author who published it . . ." As Nuttall did not specifically reject the names in the Catalogue, they must be considered as published. The arguments put forth by Graustein (1956) are immaterial. She states that under the terms of a contract, Nuttall's journals and observations became the exclusive property of Barton, and Nuttall was not supposed to do anything else but what was specifically stated in the contract. Thus, Graustein believes that Nuttall could not legally publish any new species in Fraser's Catalogue, for if he did, he would be breaking the terms of the contract. However, as McKelvey (1955) has pointed out, Nuttall's mere presence with the Overland Astorians as they ascended the Missouri River was breaking his contract with Barton, as was the shipping of his plants to England instead of Philadelphia. Certainly one more step in the breaking of the contract by publishing his findings would not be totally surprising.

Therefore, it is my desire in this paper to discuss each species listed in Fraser's 1813 Catalogue, basing the validity of the names on the adequacy of the descriptions and subsequent identifiability of each entity, considering the nomenclatural status and history of each, and making necessary adjustments and suggestions where necessary.

## ACKNOWLEDGEMENTS

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1. *Allium reticulatum* Nutt. in Fras., nom. nud. This name was published in 1827 as *A. reticulatum* Nutt. ex G. Don in Wern., Nat. Hist. Soc. Mem. 6: 36, but it was a homonym of *A. reticulatum* J. & C. Presl, Fl. Cech. 73. 1819. Nelson and Macbride later renamed this species *A. textile* in Bot. Gaz. 56: 470. 1913.

2. *Allium stellatum* Nutt. in Fras., nom. nud. This species was a short time later described by Sims, referring to Nuttall's name in the Fraser's *Catalogue*, and should be cited as *A. stellatum* Nutt. ex Sims, Bot. Mag. 38: pl. 1576. Aug. 1813.

3. *Alyssum petraeum* Nutt. in Fras., nom. nud. I have been unable to determine the identity of this nomen nudum. The name has not been treated by any subsequent author.

4. *Amorpha canescens* Nutt. in Fras., nom. nud. Pursh published this same name in Fl. Am. Sept. 2: 467. 1814, but made no reference to the Fraser's Catalogue.

5. *Amorpha nana* Nutt. in Fras. Catal. 1813. In my opinion this species is validly published in the Catalogue and should be accepted. Nuttall gives the following key points: ". . . elegant dwarf shrub, with highly odorous purple flowers . . . It is perfectly glabrous, dentures of the calyx all acuminate, and the legume one seeded." Pursh cites *A. nana* as a synonym of his own *A. microphylla* Pursh, Fl. Am. Sept. 2: 466. 1814.

6. *Astragalus crassicarpus* Nutt. in Fras. Catal. 1813. Barneby (1964) in his recent monograph on *Astragalus* succinctly states the problem on the Catalogue and this species as follows:

"The status of the name *A. crassicarpus* is somewhat controversial, being vulnerable to criticism from two directions. The Fraser Brothers' Catalogue has been attacked and defended in recent years . . . as a valid medium of publication, neither side to the question having gained a conclusive victory. A graver fault is the extreme brevity of the original description and the fact that Nuttall himself [1818] adopted Pursh's *A. carnosus* in place of his own (or what is presumed to be his own) proposition. However no reasonable doubt has ever been entertained as to the identity of *A. crassicarpus*, which was already known to botanists contemporary with Nuttall."

The brief description noted by Barneby is just that: "Fruit about the size and form of *A. physodes*, but thick and succulent." Although it is brief, there is no question as to the species Nuttall had in mind. Pursh described *A. carnosus* in Fl. Am. Sept. 2: 740. 1814 from a Bradbury collection of *Sophora* (*S. nuttalliana* B. L. Turner) and fruits taken (according to Nuttall) from the Nuttall collection of *A. crassicarpus*. The species was later described as *A. caryo-*

*carpus* Ker in Bot. Reg. 2: 176, cum icone. 1816, from plants cultivated in Lambert's Garden from seeds that Nuttall had provided for the Fraser Brothers' Nursery.

7. *Astragalus melanocarpus* Nutt. in Fras., nom. nud. Nuttall apparently renamed this species *A. missouriensis* Nutt., Gen. N. Amer. Pl. 2: 99. 1818, but made no reference to the Fraser's Catalogue.

8. *Astragalus gracilis* Nutt. in Fras., nom. nud. Nuttall described this species in Gen. N. Amer. Pl. 2: 100. 1818, stating that his species ". . . appears to be *A. tenellus* of Pursh and also *Ervum multiflorum*, Suppl. 2. p. 739. It is likewise *Dalea parviflora* PH. 2. p. 474. as I have examined the specimen so marked in Herb. Lambert." As *A. tenellus* is a totally different species, Barneby (1964) comments: "Nuttall cited his own *A. gracilis* of Fraser's Catalogue, a nomen nudum, and *Dalea parviflora* Pursh . . . The name *A. gracilis* is therefore best treated as a legitimate substitute for *Dalea parviflora* . . ."

9. *Artemisia cernua* Nutt. in Fras., nom. nud. Nuttall described this species and ascribed the name in Fraser's Catalogue to himself in Gen. N. Amer. Pl. 2: 143. 1818, but by then Pursh had described the same species as *A. dracunculoides* Pursh, Fl. Am. Sept. 2: 742. 1814. When Pursh proposed his new species, he cited the name from Fraser's Catalogue, but as *A. nutans* instead of *A. cernua*, no doubt an error, in synonymy of his new species. It is generally agreed today that the American plant and the European one are conspecific and should be called *A. dracunculus* L.

10. *Aristida*. This grass genus is cited without a specific epithet. Nuttall cites *A. pallens* Cav. in his Genera, but according to Hitchcock (1951), this is *A. oligantha* Michx. Possibly this is the grass cited.

11. *Batschia fimbriata* Nutt. in Fras., nom. nud. Pursh described this species as *B. longiflora* in Fl. Am. Sept. 1: 132. 1814, and Nuttall redescribed the species by the same name in Gen. N. Amer. Pl. 1: 114. 1818, adding *B. decumbens*. In no instance is *B. fimbriata* referred to. The species is now known as *Lithospermum incisum* Lehm., Asperif. 303. 1818. The name *B. longiflora* is rejected because of *L. longiflorum* Salisb., 1796, while *B. decumbens* is rejected due to *L. decumbens* Vent., 1800.

12. *Bumelia confertiflora* Nutt. in Fras., nom. nud. This species is stated as having been collected near Saint Louis, Missouri. The only *Bumelia* found in that area is *B. lanuginosa* (Michx.) Pers. var. *oblongifolia* (Nutt.) R. B. Clark. Although Nuttall did not mention *B. confertiflora* when he described *B. oblongifolia* in Gen. N. Amer. Pl. 1: 135. 1818, it certainly must be the same plant. Neither Clark (1942) or Cronquist (1945) indicated the possible position of this nomen nudum.

13. *Bartonia decapetala* Pursh in Sims, Bot. Mag. 36: pl. 1487. Aug. 1812. When Nuttall wrote the treatment for the Fraser's Catalogue, he indicated that this was a new species, and probably for him it was. Pursh apparently took notes from living material grown in England from seeds presented to the Fraser Brothers by Nuttall, and rushed into publication in Sims' Botanical Magazine the name of the new genus *Bartonia*. This action was probably not intended to beat Nuttall to the publication, but to please Benjamin Smith Barton, the teacher and sponsor of both Pursh and Nuttall. Needless to say, the name *Bartonia* had already been published by Muhlenberg for an entirely different plant. *Bartonia decapetala* later proved to belong to an already published genus, and is known now as *Mentzelia decapetala* (Pursh in Sims) Urban & Gilg, Ber. Deut. Bot. Ges. 10: 263. 1892. A more detailed history of the feud between Nuttall and Pursh is given in McKelvey's book (1955).

14. *Bartonia polypetala* Nutt. in Fras., nom. nud., as *pollypetala*. This species name has not been treated by any subsequent author, but is probably the same plant later named *B. nuda* Pursh, Fl. Am. Sept. 1: 328. 1814. This species is now called *Mentzelia nuda* (Pursh) Torr. & Gray, Fl. N. Amer. 1: 535. 1840.

15. *Chloris mucronata* Michx., Fl. Bor. Amer. 1: 59. 1803. This grass was included on the list in the Catalogue as one of the more interesting North American grasses available from the Fraser Brothers' Nursery. It is known presently as *Dactyloctenium aegyptium* (L.) Beauv.

15. *Chloris mucronata* Michx., Fl. Bor. Amer. 1: 59. 1803. 1803. Like the above grass, this one was cited in the Catalogue as being available from the Fraser Brothers' Nursery. It is known presently as *Bouteloua curtipendula* (Michx.) Torr.

17. *Cyperus*. An unspecified species of this genus was listed as available at the Fraser Brothers' Nursery. It was not indicated as being a new species.

18. *Cynoglossum glomeratum* Nutt. in Fras., nom nud. This species was described the following year by Pursh at which time he cited the Fraser Brothers' Catalogue as the source of his name. The citation should thus read: *C. glomeratum* Nutt. ex Pursh, Fl. Am. Sept. 2: 729. 1814. This species is now known as *Cryptantha celosioides* (Eastw.) Pays., Ann. Mo. Bot. Gard. 14: 299. 1927.

19. *Calymenia nyctaginea* (Michx.) Nutt. in Fras. Catal. 1813, comb. nov. This new combination was later made in, and is usually dated from, Gen. N. Amer. Pl. 1: 26. 1818, by Nuttall. As there was no requirement in 1813 that a basionym be cited, the combination should be considered as made in the Catalogue. The species is now known as *Mirabilis nyctaginea* (Michx.) MacM.



20. *Calymenia pilosa* Nutt. in Fras., nom. nud. Nuttall in Gen. N. Amer. Pl. 1: 26. 1818 published this species, but by then Pursh had published *Allionia hirsuta* Pursh, Fl. Am. Sept. 2: 728. 1814, from a Bradbury collection. The species is presently known as *Mirabilis hirsuta* (Pursh) MacM.

21. *Calymenia angustifolia* Nutt. in Fras., nom. nud. Pursh cited this nomen nudum when he proposed *Allionia linearis* in Fl. Am. Sept. 2: 728. 1814, based on a Bradbury collection. Nuttall, in his Gen. N. Amer. Pl. 1: 26. 1818, described as new his *C angustifolia*, citing not only "T. Nuttall in Fraser's Catalogue. 1813." but the Pursh name as well. The species is now known as *Mirabilis linearis* (Pursh) Heimerl.

22. *Cactus viviparus* Nutt. in Fras. Catal. 1813. This species is certainly described here, although Nuttall re-described it in Gen. N. Amer. Pl. 1: 295. 1818. The descriptive points given by Nuttall in 1813 are: "This species has much the appearance of *C. mamillaris*, but produces a large red flower, like *C. Flagelliformis*, and a greenish edible fruit, about the size of a grape." The species is now called *Coryphantha vivipara* (Nutt. in Fras.) Britt. & Brown, Ill. Fl. 2nd Ed. 2: 571. 1913. It should be noted that *Cactus mamillaris* of Nuttall is *Coryphantha missouriensis* (Sweet) Britt. & Rose.

23. *Cactus ferox* Nutt. in Fras., nom. nud. Nuttall later described this species in Gen. N. Amer. Pl. 1: 296. 1818, but was not aware that this name was a later homonym of *C. ferox* Willd., 1813. In 1828 de Candolle substituted *Opuntia missouriensis* DC., Prodr. 3: 472, for the Nuttallian species. The name *O. polyacantha* Haw., Syn Pl. Succ. Suppl. 82. 1819, however, was already available for the species.

24. *Cactus fragilis* Nutt. in Fras., nom. nud. As with the above species of cactus, Nuttall also described it in 1818, and this place of publication is the basis for *Opuntia fragilis* (Nutt.) Haw., Syn. Pl. Succ. Suppl. 82. 1819, the generally accepted name for this species.

25. *Cheiranthus asperus* Nutt. in Fras., nom. nud. Pursh did not attempt to ascertain the nature of this species in 1814, and thus this enabled Nuttall to describe the species as *C. asper* in Gen. N. Amer. Pl. 2: 69. 1818. This species is now called *Erysimum asperum* (Nutt.) DC., Syst. Veg. 2: 505. 1821.

26. *Cytisus rhombifolius* Nutt. in Fras., nom. nud. This species was described by Pursh in Fl. Am. Sept. 2: 741. 1814, at which time he cited the Fraser's Catalogue as the source of his name. Nuttall transferred the species from *Cytisus* to *Thermia* as *T. rhombifolia* (Nutt. ex Pursh) Nutt., citing both his name in the Catalogue and Pursh's place of publication. The species has since been transferred to *Thermopsis*, the citation being *T. rhombifolia* (Nutt. ex Pursh) Nutt. ex Richards. in Frankl. 1st. Journ. App. 737. 1823.

27. *Diodia virginica* L. This species was mentioned in the Catalogue as a plant that was available from the Fraser Brothers' Nursery.

28. *Dracocephalum cuspidatum* Nutt. in Fras. Catal. 1813. In my opinion the statement given "A Verticillate species" is enough to describe this species of mint. Nuttall later named this species as *D. parviflorum* Nutt., Gen. N. Amer. Pl. 2: 35. 1818, the name commonly used today. Of the species of *Dracocephalum* from the United States, as understood and known to Nuttall at that time, none but this has flowers that are verticillate, and this point is the first descriptive statement he used in describing *D. parviflorum*. The generic problem of whether or not to separate *Draco-*

*cephalum* and *Physostegia* is not for me to discuss, but if *D. cuspidatum* should be transferred to *Physostegia*, I can find no conflict.

29. *Dalea aurea* Nutt. in Fras., nom. nud. This species was described the following year by Pursh as *D. aurea* Nutt. ex Pursh, Fl. Am. Sept. 2: 740. 1814. Pursh based his description on a Bradbury collection, but cited the Fraser's Catalogue as the source of his name. Nuttall later redescribed this species using the same name in Gen. N. Amer. Pl. 2: 101. 1818, citing both the Fraser's Catalogue and Pursh's flora.

30. *Dalea enneandra* Nutt. in Fras. Catal. 1813. The description of this species is one of the more complete. Nuttall stated that the "... stem is tall and erect, sending out numerous slender waving branches towards its summit, terminated by racemes of white flowers, and silky calyces." Pursh renamed this species *D. laxiflora* in Fl. Am. Sept. 2: 741. 1814, and Nuttall accepted this name in his Gen. N. Amer. Pl. 2: 101. 1818, with no mention of his own species published five years before. It is difficult to determine whether Nuttall was rejecting his own name because of some taxonomic reason, or simply because the Pursh name seemed better. Nevertheless, Nuttall's name can not be rejected solely because Nuttall himself did not later accept it.

31. *Elaeagnus argentea* Nutt. in Fras., nom. nud., as *argenteus*. Pursh described this species under the same name in Fl. Am. Sept. 1: 114. 1814. As this name appeared in the first volume, I believe that Pursh was selecting the same name on the same basis as Nuttall selected the name. The name, however, is a homonym of *E. argentea* Moench, Meth. Pl. 638. 1794 which is a superfluous substitute for *E. angustifolius* L., a different species entirely. The species is presently known as *E. commutata* Bernh. ex Rydb., Fl. Rocky Mts. 582. 1917. It should be noted that the citation

"*E. argentea* Colla, 1791," which is sometimes given as the earliest *E. argentea* is an error. Colla's name was published in Hort. Rip. in 1824.

32. *Evolvulus sessiliflorus* Nutt. in Fras., nom. nud. Pursh described this species as *Evolvulus argenteus* Pursh, Fl. Am. Sept. 1: 187. 1814, but made no reference to Fraser's Catalogue. This name, however, is a later homonym of *E. argenteus* R. Br., Prod. Fl. Nov. Holl. 489. 1810. Nuttall proposed a substitute name, *E. pilosus* in Gen. N. Amer. Pl. 1: 174. 1818, which is generally accepted as the valid name. Although *E. pilosus* was an alternative name which is now illegitimate under the Code, the rule is not retroactive. In no case is the nomen nudum mentioned.

33. *Echites puberula* Michx., Fl. Bor. Amer. 1: 120. 1803. This species was listed in the Catalogue as being available from the Fraser Brothers' Nursery. It is presently known as *Trachelospermum difforme* (Walt.) A. Gray.

34. *Eriogonum flavum* Nutt. in Fras. Catal. 1813. In my opinion this species is adequately described even though the only character given is "Fl. bright yellow." All of the other species in the genus known in 1813 had white flowers, and this note of distinction would certainly have held up if no other species were ever discovered. Pursh described this species as *E. sericeum* in Fl. Am. Sept. 1: 277. 1814, but the Nuttall name is commonly used.

35. *Erysimum montanum* Nutt. in Fras., nom. nud. I have been unable to discover what plant this nomen nudum is referable to. It has not been treated by any subsequent author.

36. *Ferula pubescens* Nutt. in Fras., nom. nud. This name was not adopted by Nuttall in 1818, as he named this plant *F. foeniculacea* Nutt., Gen. N. Amer. Pl. 1: 183. 1818. This species is now commonly called *Lomatium foeniculaceum*

(Nutt.) Coult. & Rose, Contr. U.S. Nat. Herb. 7: 222. 1900. In a recent revision of the species in this complex by Theobald (1966), the nomen nudum is not mentioned.

37. *Fritillaria americana* Nutt. in Fras., nom. nud. This species was described as *F. alba* Nutt., Gen. N. Amer. Pl. 1: 222. 1818, but with no reference to Fraser's Catalogue. The name *F. alba* is currently considered a nomen dubium. Beetle (1944) in her revision of the genus, states that the description is mainly that of a *Fritillaria*, and that the only species in the genus in the area where Nuttall visited is *F. atropurpurea* Nutt., Journ. Acad. Phil. 7: 54. 1834. Nevertheless, the description of the flowers states that they are "... rather large and white . . ." Ownbey (1940) suggests that this part of the description refers to *Calochortus nuttallii* Torr., which also occurs in the area that Nuttall collected in 1811. It might be well to comment in this connection that the flowers of *F. atropurpurea*, when poorly prepared, blacken as do several other white-flowered species, and it might have been that Nuttall simply forgot their true color. Until the type can be located, the name had best be considered a nomen dubium, but I feel that a case could be made to remove that title if it were seriously attempted.

38. *Gonolobus hirsutus* Michx., Fl. Bor. Amer. 1: 119. 1803. This species was listed as one of the interesting plants that could be obtained from the Fraser Brothers' Nursery. Donald J. Drapalik of the University of North Carolina, informs me that he believes this name, a new name for *Vincetoxicum acanthocarpus* Walt., is referable to *Matelea carolinensis* (Jacq.) Woodson.

39. *Gaura coccinea* Nutt. in Fras., nom. nud. The first place of valid publication for this species is *G. coccinea* Nutt. ex Pursh, Fl. Am. Sept. 2: 733. 1814, and the description is based on a Bradbury collection, but with the citation of the Catalogue as the source of the name.

40. *Hypericum surculosum* Nutt. in Fras., nom. nud. I have been unable to determine what species from along the Mississippi River this nomen nudum refers to.

41. *Hyssopus anethiodorus* Nutt. in Fras. Catal. 1813. When Nuttall described this species, he pointed out the unique feature of the flower color when he said "Both calyx and corolla blue," for at that time, only two other species were known from the United States. These species, *Agastache nepetoides* (L.) Kuntze with greenish-yellow flowers and *A. scrophulariifolium* Willd.) Kuntze with purplish flowers, were both well known to Nuttall. By pointing out the obviously distinguishing feature, the species, in my opinion, is validly published. Pursh described the same species as *Stachys foeniculum* Pursh, Fl. Am. Sept. 2: 407. 1814, and Nuttall redescribed the same species as *H. anisatus* in Gen. N. Amer. Pl. 2: 27. 1818, citing only the Pursh name in synonymy. Inasmuch as *H. anethiodorus* is validly described, the proper name should be *A. anethiodora* (Nutt. in Fras.) Britt. in Britt. & Brown, Ill. Fl. 3: 85. 1898.

42. *Jussieua angulata* Nutt. in Fras., nom. nud. This species was described as *J. leptocarpa* Nutt., Gen. N. Amer. Pl. 1: 299. 1818, but with no reference to the name in Fraser's Catalogue. This species is currently called *Ludwigia leptocarpa* (Nutt.) Hara, Jour. Jap. Bot. 28: 292. 1953.

43. *Linum perenne* L. var. *americanum* Nutt. in Fras., nom. nud. This same plant was named *L. lewisii* Pursh, Fl. Am. Sept. 1: 210. 1814, but by the time Nuttall wrote his treatment of the genus for his flora, he considered that the differences between the American and European plants were not great enough to warrant even varietal separation. Since then, however, the trend has been to recognize the American phase as *L. perenne* L. ssp. *lewisii* (Pursh) Hult.<sup>1</sup>

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<sup>1</sup>Like many American taxonomists, I have been slow in accepting the reality that *L. lewisii* was not as distinct from *L. perenne* as one should prefer distinct species to be. By having an opportunity to study

44. *Lilium andinum* Nutt. in Fras. Catal. 1813. In my opinion the description given by Nuttall is adequate enough to determine what species of lily he had in mind, and thus the name should be considered as validly published. He states that this species “. . . has affinity to *L. Catesboei*, but the stem is usually 3-5 flowered.” The following year, Pursh published *L. umbellatum* in Fl. Am. Sept. 1: 229. 1814, citing only a Nuttall specimen but making no reference to Fraser's Catalogue. When Nuttall republished *L. andinum* in Gen. N. Amer. Pl. 1: 221. 1818, he cites his name from the Catalogue.

The species is closely related to *L. philadelphicum* L., and should be considered as a variety, var. *andinum* (Nutt.) Ker., Bot. Reg. 7: pl. 594. 1821. Wherry (1947) states that the combination proposed by Ker-Gawler was of subspecific rank, but as one may see, Ker-Gawler distinctly says that his new combination was at the varietal rank when he wrote: “We have thought it safer to keep the two [i.e. *L. philadelphicum* and *L. andinum*] under the same specific title, assorting to each its particular synonymy below the head of its variety.”

45. *Liquiritia lepidota* Nutt. in Fras., nom. nud. This name was first published in Pursh, and may be cited as *Glycyrrhiza lepidota* Nutt. ex Pursh, Fl. Am. Sept. 2: 480. 1814. When Nuttall redescribed this species in Gen. N. Amer. Pl. 2: 106. 1818, he stated why he no longer used the name *Liquiritia* when he said: “This plant appears to destroy the

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herbarium material in the major herbaria across the United States during my Internship at the U.S. National Herbarium, I came to realize that Hultén's treatment of our plant was most acceptable. This means, however, that a rare, high alpine ecotype of this species from Nevada must have its nomenclature adjusted, and is to be now known as *L. perenne* ssp. *lewisii* var. *saxosum* (Maguire & Holmgren) Reveal, comb. nov., based on *L. lewisii* var. *saxosum* Maguire & Holmgren, Leaflet West. Bot. 4: 265. 1946. During the summer of 1964, Noel H. Holmgren, of the New York Botanical Garden, and I found a single specimen of this variety on top of Mt. Jefferson in the Toiyama Mountains, Nye Co., Nevada. This extended the known range of this variety south from its type locality in the Ruby Mountains.

artificial distinctions by which *Glycyrrhiza* and *Liquiritia* have been separated; as it can be equally referred to either one or the other."

46. *Lathyrus myrtifolius* Muhl. in Willd., Sp. Pl. 3: 1091. 1803. This plant is listed in the Catalogue as available from the Fraser Brothers' Nursery.

47. *Lactuca oblongifolia* Nutt. in Fras. Catal. 1813. In considering the species of *Lactuca* that Nuttall was familiar with from the United States, and the plants which Nuttall considered to belong to this genus, all had yellowish flowers. Therefore, his characterization of his new species as having "Fl. blue." is, in my opinion, a valid description. Within the related genus *Sonchus*, there are several blue-flowered species including some from Missouri, but as Nuttall placed them in *Sonchus*, this does not in any way invalidate the Nuttall species published in the Catalogue. Although these blue-flowered species of *Sonchus* have subsequently been transferred to *Lactuca*, Nuttall did not, at that time, consider them to be members of the genus *Lactuca*.

The following year, Pursh described *Sonchus pulchellus* in Fl. Am. Sept. 2: 502. 1814. Later, Nuttall decided to rename both as *L. integrifolia* in Gen. N. Amer. Pl. 2: 124. 1818, at which time he cites his name from the Catalogue, and Pursh's 1814 species. Thus, as *L. oblongifolia* was a validly and properly described species, it should replace *L. pulchella* (Pursh) DC., Prodr. 7: 134. 1838, which is presently the commonly used name for this species.

48. *Liatris graminifolia* (Walt.) Willd., Sp. Pl. 3: 1636. 1803. This species was listed as one of the more interesting species that could be obtained from the Fraser Brothers' Nursery.

49. *Liatris paniculata* Willd., Sp. Pl. 3: 1637. 1803. This was listed as one of the more interesting species that could



be obtained from the Fraser Brothers' Nursery. Its exact identity, however, was questioned.

50. *Mentzelia oligosperma* Nutt. in Fras., nom. nud. This nomen nudum was first published by Sims as *M. oligosperma* Nutt. ex Sims, Bot. Mag. 42: pl. 1760. 1815, citing Fraser's Catalogue as the source for his name. It is interesting to note that while the Catalogue was not signed, or in any way credited directly to Thomas Nuttall who by 1815 had not in print credited himself with any of the names in the Catalogue, Sims had no question as to who the author of this species was.

51. *Malva coccinea* Nutt. in Fras. Catal. 1813. Nuttall describes this species as follows: "Flowers scarlet, produced in dense spikes," a sufficient description to consider Fraser's Catalogue as the original place of publication. Pursh made the combination *Cristaria coccinea* in Fl. Am. Sept. 2: 453. 1814, citing "Malva coccinea, Fraser. catal." This species was again described by Nuttall in Gen. N. Amer. Pl. 2: 81. 1818, at which time he cited his original description and indirectly referred to Pursh's new combination. He states rather briskly that "This plant has no sort of affinity to *Cristaria*, and by the fruit is a genuine Malva." In considering the Catalogue as the place of publication, typification of the species must be changed from the Lewis collection cited by Pursh to the Nuttall collection. This species is currently known as *Sphaeralcea coccinea* (Nutt. in Fras.) Rydb., Bull. Torr. Bot. Club 40: 58. 1913.

52. *Oenoplea volubilis* (Linn. f.) Nutt. in Fras., comb. nov., as *Oenoplia*. This new combination is based on *Rhamnus volubilis* Linn. f., Suppl. 152. 1781. The combination here was made before that of Roemer & Schultes who proposed the same combination in Syst. Veg. 5: 332. 1819. The species is now known as *Berchemia scandens* (Hill) K. Koch, Dendrol. 1: 602. 1869. This latter combination might be noted as it is usually attributed to Trel., Trans. Saint

Louis Acad. 5: 364. 1889. The species was listed as one of the more interesting plants that could be obtained from the Fraser Brothers' Nursery.

53. *Oenothera cespitosa* Nutt. in Fras. Catal. 1813. This species is amply described by Nuttall when he states that "This species is more perfectly stemless than *Oe. acaulis*, of Cavanilles, from which it is perfectly distinct. Flowers very large and white, with dilated obcordate petals." Pursh described the same species from a Lewis collection as *Oe. scapigera* in Fl. Am. Sept. 1: 263. 1814, but as the species is adequately described in the Catalogue, it should be cited as the original place of publication.

54. *Oenothera albicaulis* Nutt. in Fras., nom nud. When Pursh described *Oe. albicaulis* in Fl. Am. Sept. 2: 734. 1814, he cited the Fraser's Catalogue as the source of his name, but did not have the same Evening Primrose in mind that Nuttall had when he proposed the name. As the Nuttall name in the Catalogue is a nomen nudum, the citation of the Pursh species must be given as *Oe. albicaulis* Pursh without any reference to the Catalogue. Nuttall later redescribed his *Oe. albicaulis* from his material in Gen. N. Amer. Pl. 1: 245. 1818, and pointed out the error that Pursh had made in associating his species with that of Nuttall's. As the Nuttall name was a later homonym, we refer to his distinct species as *Oe. nuttallii* Sweet, Hort. Brit. ed. 2, 199. 1830.

55. *Oenothera serrulata* Nutt. in Fras., nom. nud. This species was later described without reference to the Catalogue as *Oe. serrulata* Nutt., Gen. N. Amer. Pl. 1: 246. 1818.

56. *Oenothera macrocarpa* Nutt. in Fras. Catal. 1813. Although Nuttall adequately described this species there has been a reluctance to take up the name because of the more commonly used name *Oe. missouriensis* Sims, Bot. Mag.

39: pl. 1592. Nov. 1813. Nuttall described the species as follows: "The fruit of this species readily distinguishes it from every other, being remarkably compressed, and furnished with four broad wings." It is my opinion that Pursh was not describing as new *Oe. macrocarpa* in Fl. Am. Sept. 2: 734. 1814, as generally assumed, but was giving the Nuttall name to the plant that had been adequately described, and putting the Sims name in synonymy. It seems certain that Pursh was taking his name from Fraser's Catalogue even though it is not cited. The name "*macrocarpa*" is not one that one would just happen to come up with.

When Nuttall wrote his Genera in 1818, he proposed an entirely different name for this species, *Oe. alata* Nutt., Gen. N. Amer. Pl. 1: 248. He cited "*Oe. macrocarpa* Ph" as a synonym, but as the name in the Catalogue was validly published, it can not be discarded, even by its author.

In accepting this name, which has been recently accepted in Gleason & Cronquist (1963), the following new combinations are proposed following the recent treatment of the family by Munz (1965):

***Oe. macrocarpa*** Nutt. in Fras. var. ***incana*** (A. Gray) Reveal, comb. nov., based on *Oe. missouriensis* Sims var. *incana* A. Gray, Bost. Jour. Nat. Hist. 6: 189. 1850.

***Oe. macrocarpa*** Nutt. in Fras. var. ***oklahomensis*** (J. B. S. Norton) Reveal, comb. nov., based on *Megapterium oklahomense* J. B. S. Norton, Rep. Missouri Bot. Gard. 9: 153. 1898.

57. *Orobus diffusus* Nutt. in Fras., nom. nud. I have been unable to determine the exact identity of this nomen nudum. It is probably the same as *O. dispar* Nutt., Gen. N. Amer. Pl. 2: 95. 1818, which is a synonym of *Astragalus tenellus* Pursh, Fl. Am. Sept. 2: 473. 1814. This species is often diffuse. Index Kewensis (Jackson, 1895) says that the nomen nudum is referable to *Vicia americana* Muhl. ex. Willd., Sp. Pl. 3: 1096. 1802, but Hermann (1960) makes no mention of this name in his revision of the genus.

58. *Oxytropis acuminata* Nutt. in Fras., nom. nud. As Barneby (1952) points out, this nomen nudum must be referable to *O. lambertii* Pursh, Fl. Am. Sept. 2: 740. 1814. The species was described with no reference to Fraser's Catalogue. Nuttall accepted the Pursh name without comment.

59. *Phalangium esculentum* Nutt. in Fras. Catal. 1813. Nuttall based this name on two elements which are now separated as distinct species. Both species have blue flowers, the character used by Nuttall to distinguish it from the other yellow-flowered species in the United States. The fact that we know he had in mind both species can be seen both in the original description in which he states that "The roots of this plant is eaten by the Savages of the Missouri and Columbia Rivers," and later in his Genera in which he discusses the wide distribution of the single species as he conceived it.

The element of the species that Nuttall himself collected was illustrated by Sims, and a new combination proposed, as *Scilla esculenta* (Nutt. in Fras.) Sims, Bot. Mag. 38: pl. 1574. Aug. 1813.<sup>1</sup> This illustration was made from plants grown in the Fraser Brothers' garden from seeds collected, according to Nuttall (1818), near the Huron River and also from around Saint Louis.

The following year, Pursh described the second element of the Nuttall species, and I doubt that Nuttall ever saw this plant before 1813. Lewis had collected *P. quamash* Pursh in Fl. Am. Sept. 1: 226. 1814, from Clearwater Co., Idaho (Gould, 1942), and this was the plant Nuttall referred to in his comments about the Columbia River Indians who used the root for food. This information probably came to Nuttall from the fur traders and trappers that he was traveling with in 1811. The Columbia River plant was later collected by David Douglas, and from cultivated plants grown in England, *Camassia esculenta* Lindl., Bot. Reg. 18: pl.

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<sup>1</sup>On the basis of this reference, the Catalogue is considered to have been published prior to August, 1813.

1486. 1832, was described and Lindley placed *P. quamash* in synonymy under his own new species. Lindley was explicit in stating that his *C. esculenta* was not *P. esculenta* of Nuttall or *S. esculenta* Sims, even though he was using the same specific name "*esculenta*" for his new species.

Gould (1942) handles the nomenclature properly, calling the eastern species that Nuttall had originally named *P. esculentum*, *Camassia scilloides* (Raf.) Cory, *Rhodora* 38: 405. 1936. He called the western species which Pursh had named *P. quamash* and later renamed *C. esculenta* by Lindley, *C. quamash* (Pursh) Greene, *Man. Bot. Bay Reg.* 313. 1894.

60. *Podalyria mollis* Michx., *Fl. Bor. Amer.* 1: 264. 1803. This species is questionably identified in the Fraser Catalogue. It must have been the same plant that Nuttall later described as *Baptisia leucophaea* in *Gen. N. Amer. Pl.* 1: 282. 1818, which Nuttall stated was collected near Saint Louis. *Podalyria mollis* is now known as *Thermopsis mollis* (Michx.) M. A. Curtis ex A. Gray.

61. *Potentilla mollis* Nutt. in *Fras.*, nom. nud. I have been unable to determine the identity of this nomen nudum as it is not mentioned by Pursh or Nuttall. Nor has it been treated in either of the two Rydberg revisions of the genus (1898, 1908). I suspect that it may possibly be the same as *P. humifusa* Nutt., *Gen. N. Amer. Pl.* 1: 310. 1818, not Willd., 1813, which is now known as *P. concinna* Richards. in *Frankl. 1st. Journ.* 739. 1823, since that was the only new *Potentilla* described by Nuttall.

62. *Pycnanthemum dichotomum* Nutt. in *Fras.*, nom. nud. It has been impossible to determine exactly what species of *Pycnanthemum* Nuttall had in mind when he proposed this name. He described two new species in his *Genera*, and of these two, he apparently collected only *P. pilosum* Nutt. himself. This species, published in *Gen. N. Amer. Pl.* 2: 33. 1818, was grown at the Fraser Brothers' Nursery, and the nomen nudum may be referred to this species.

63. *Penstemon angustifolium* Nutt. in Fras., nom. nud., as *Pentstemon*. This species was subsequently published as *P. angustifolium* Nutt. ex Pursh, Fl. Am. Sept. 2: 738. 1814, at which time Pursh cites the Fraser Catalogue as the basis for his name. Nuttall chose to reject this name stating that he could not refrain from adopting *P. caeruleum* Nutt., Gen. N. Amer. Pl. 2: 52. 1818, over *P. angustifolium* “. . . which I had formerly given . . .” The species is now called *P. angustifolium*.

64. *Penstemon grandiflorum* Nutt. in Fras. Catal. 1813. I am inclined to consider this species as published and that the comments given by Nuttall are distinctive enough to make an unquestionable recognition of this species. Nuttall states: “Flower about the size and form of *Digitalis purpurea*, and spontaneously subject to great variation in color.” Later, under *P. erianthera*, Nuttall comments: “*P. grandiflorum* is nearly the commonest species in that country, and it was first met with near the confluence of the river Platte, from whence it continues to the Andes, frequently occurring in vast fields, together with the *scarlet mallow*, which form a brilliant object, visible at some miles distance.”

Of the known species of *Penstemon* in 1813, this was certainly the only large flowered species, and the similarity of the flower to *Digitalis* is apparent. Pursh described the same species as *P. bradburii* Pursh, Fl. Am. Sept. 2: 738. 1814, and this species name would have to be adopted if the Nuttall name should be deemed invalid.

65. *Penstemon cristatum* Nutt. in Fras., nom. nud. Nuttall described this species as *P. cristatum* in Gen. N. Amer. Pl. 2: 52. 1818, but by that time, Pursh had described the species as *P. erianthera* Pursh, Fl. Am. Sept. 2: 737. 1814. In attempting to apply the Nuttall name *P. erianthera*, Pursh mistakenly applied the name to the plant that Nuttall had called *P. cristatum*. Therefore, the name of this species must be *P. erianthera* Pursh.

66. *Penstemon teretiflorum* Nutt. in Fras., nom. nud. Nuttall described this species as *P. albidum* in Gen. N. Amer. Pl. 2: 53. 1818, citing his nomen nudum as a synonym.

67. *Penstemon erianthera* Nutt. in Fras., nom. nud. As noted above, under *P. cristatum*, Pursh misapplied the Nuttall name to that species, and the plant that Nuttall had called *P. erianthera*, Pursh proposed *P. glaber* in Fl. Am. Sept. 2: 738. 1814. When Nuttall described his *P. erianthera* in Gen. N. Amer. Pl. 2: 52. 1818, he placed the Pursh name in synonymy in an attempt to correct the Pursh error. However, the rules of nomenclature do not allow such superfluous substitutes, and this species must be called *P. glaber* Pursh.

68. *Passiflora lutea* L. This species was listed as one of the more interesting plants which was available at the Fraser Brothers' Nursery.

69. *Petalostemon violaceum* Michx., Fl. Bor. Amer. 2: 50. 1803. This species was listed as an interesting plant which was available at Fraser Brothers' Nursery. The correct name for this species is *Dalea purpurea* Vent., Hort. Cels. pl. 40. 1800.

70. *Petalostemon candidum* (Willd.) Michx., Fl. Bor. Amer. 2: 49. 1803. This species was listed as an interesting plant which was available at the Fraser Brothers' Nursery. The correct name for this species is *Dalea candida* Willd., Sp. Pl. 3: 1337. 1802.

71. *Psoralea macrorhiza* Nutt. in Fras., nom. nud. Pursh described this species, naming it *P. cuspidata* Pursh, Fl. Am. Sept. 2: 741. 1814, and cited the Nuttall nomen nudum in synonymy. The Pursh name was accepted by Nuttall in his Genera without comment.

72. *Psoralea esculenta* Nutt. in Fras., nom. nud. Pursh published this species as *P. esculenta* in Fl. Am. Sept. 2: 475.

1814, without reference to the Fraser Catalogue. Nuttall later, in Gen. N. Amer. Pl. 2: 102. 1818, credited himself with the name from Fraser's Catalogue, and put the Pursh citation in synonymy.

73. *Psoralea incana* Nutt. in Fras., nom. nud. Pursh described this species as *P. argophylla* in Fl. Am. Sept. 2: 475. 1814, the name this species may be known as today. Later, Nuttall published his name *P. incana* in Gen. N. Amer. Pl. 2: 102. 1818, and placed the Pursh name in synonymy.

74. *Ribes longiflorum* Nutt. in Fras., nom nud. According to Torrey & Gray, Fl. N. Amer. 1: 552. 1840, this species is *R. aureum* Pursh, Fl. Am. Sept. 1: 164. 1814. In 1834, Nuttall claimed authorship of this name when he cited Wyeth's collection of *Ribes aureum*. Nuttall wrote: "*Ribes longiflorum*, Nuttall, in Fraser's Catalogue, 1813. So named one year previous to Pursh's publication."

75. *Rudbeckia columnifera* Nutt. in Fras. Catal. 1813. In my opinion, this species is adequately described in Fraser's Catalogue, as Nuttall states:

"Spontaneous varieties of this plant sometimes occur with bright fulvous flowers, coloured like *Tagetes patula*: the stem is simple, seldom producing more than three flowers, which are of an uncommon length, appearing like a column of flosculi, subtended by 5-8 neutral florets, and a simple calyx."

This species was also described as *R. columnaris* Sims, Bot. Mag. 39: 1601. 1813, from cultivated plants given to Sims by the Fraser Brothers who had grown the species from seeds collected by Nuttall. The Pursh name, *R. columnaris* Pursh, Fl. Am. Sept. 2: 575. 1814, is an illegitimate substitute for Nuttall's *R. columnifera*, and is thus an exact synonym of it. The species is now commonly known as *Ratibida columnifera* (Nutt. in Fras.) Woot. & Standl., Contr. U.S. Nat. Herb. 19: 706. 1915.



76. *Rudbeckia purpurea* L. var. *serotina* Nutt. in Fras. Catal. 1813. In my opinion, this variety is validly published. Nuttall redescribed this variety in Gen. N. Amer. Pl. 2: 178. 1818, but with no reference to Fraser's Catalogue. In the Catalogue, the descriptive comments are: "Stem somewhat branching and hirsute, fls. brighter and more numerous." This form is usually referred to *Echinacea purpurea* (L.) Moench.

77. *Saccharum brevibarbe* (Michx.) Pers., Syn. Pl. 1: 103. 1805. This species was listed in the Catalogue as one of the interesting plants that could be obtained from the Fraser Brothers' Nursery. It is now known as *Erianthus brevibarbis* Michx., Fl. Bor. Amer. 1: 55. 1803.

78. *Seseli lucidum* Nutt. in Fras., nom. nud. This name was never published, and Nuttall mentions it as a synonym under *S. divaricatum* Pursh, Fl. Am. Sept. 2: 732. 1814. According to Mathias & Constance (1944), the nomen nudum is referable to *Musineon divaricatum* (Pursh) Nutt. ex Torr. & Gray var. *hookeri* Torr. & Gray.

79. *Stylosanthes racemosa* Nutt. in Fras., nom. nud. I have been unable to determine the identity of this nomen nudum.

80. *Sideranthus integrifolius* Nutt. in Fras., nom. nud. The name *Sideranthus* was proposed as a new genus, but as it lacks a description, it was not validly published. It was not until 1840 that Nuttall finally accepted the name as his. The identity of this species has not been definitely ascertained. Pursh, on the basis of a Bradbury specimen, placed *S. integrifolius* under his *Amellus villosus* in the Addenda et Corrigenda section of the Flora on page 750. Steudel, Nom. 775. 1821, also places *S. integrifolius* under *A. villosus*. The Steudel publication is often cited as the first place to indicate what the Nuttall nomen nudum referred to.

81. *Sideranthus pinnatifidus* Nutt. in Fras., nom. nud. This name was referred to *Amellus spinulosus* Pursh, Fl. Am. Sept. 2: 750. 1814, an opinion in which Hall (1928) concurs under *Haplopappus spinulosus* (Pursh) DC., Prodr. 5: 347. 1836.

82. *Sycios angulata*. The genus name *Sycios* is an alternate spelling for *Sicyos*. The Fraser Brothers were offering for sale *Sicyos angulatus* L. through their Nursery.

83. *Troximon ciliatum* Nutt. in Fras., nom. nud. Pursh published this species as *T. cuspidatum* in Fl. Am. Sept. 2: 742. 1814. Later, Nuttall described *T. marginatum* in Gen. N. Amer. Pl. 2: 128. 1818, citing the Pursh species in synonymy. The species is now known as *Microseris cuspidata* (Pursh) Schultz-Bip., Pollichia 22-24: 309. 1866.

84. *Troximon glaucum* Nutt. in Fras., nom. nud. This species was described as *T. glaucum* Pursh, Fl. Am. Sept. 2: 505. 1814, but with no reference to Fraser's Catalogue. Index Kewensis (Jackson, 1895) indicates that the name should be cited as Nutt. ex Pursh. The plant is now called *Agoseris glauca* (Pursh) Raf., Herb. Raf. in Extra of Atl. Journ. 6: 39. 1833.

85. *Thuraria herbacea* Nutt. in Fras., nom. subnud. Cronquist (1957) stated that in his opinion this species is a *nomen dubium*, and this opinion he still holds. In corresponding with Dr. Cronquist on this species, he has written: "Neither *Gutierrezia* nor *Euthamia* can be excluded on the basis of the original publication alone, although one might have a good suspicion that the plant would turn out to be a *Grindelia*. The point is that a good suspicion is not enough. When it is not clear that the author is even trying to provide a botanical description, then his comments must make the application of the name unmistakably plain if the name is to be considered validly published."

The species was described as having "Fl. yellow, and the calyx resiniferous." Nuttall also stated that the species occurred in open ground along the Missouri River. Dr. Alfred E. Schuyler of the Academy of Natural Sciences in Philadelphia has informed me that there is a collection of this species in the Academy Herbarium, but under the name *Donia squarrosa*. Pursh described *D. squarrosa* in Fl. Am. Sept. 2: 559. 1814, which Nuttall later accepted in his Genera without comment or reference to the name published in Fraser's Catalogue.

Although I feel certain that Nuttall had *Grindelia squarrosa* (Pursh) Dunal, Mém. Mus. Par. 5: 50. 1819, in mind when he proposed his new genus *Thuraria*, he did not adequately separate it from related genera, and thus it can not be considered as validly published.

86. *Uniola latifolia* Michx., Fl. Bor. Amer. 1: 70. 1803. This plant was listed as one of the interesting new grasses that was available at the Fraser Brothers Nursery.

87. *Virgilia grandiflora* Nutt. in Fras. Catal. 1813. Nuttall described this species as follows: "This fine species differs essentially from *V. bicolor*, in being perennial, and producing a simple stem, terminated by one to three large flowers: its entire pappus also distinguishes it from *V. fimbriata*." Pursh published this species as *Gaillardia aristata* Pursh, Fl. Am. Sept. 2: 573. 1814, thinking the plant to be an annual on the basis of the Lewis collection. On page 570, Pursh cites *V. grandiflora* from the Catalogue, and corrects his error, indicating that the species is perennial.

Shinners (1956) stated that if *V. grandiflora* is considered as validly published, then a new combination would be necessary. Cronquist (1957) however, pointed out that there is already a *Gaillardia grandiflora* Hort. ex Lemaire, Ill. Hort. 4: pl. 139. 1857, and thus the proper name for our plant is still *G. aristata* Pursh.

88. *Vitis campestris* Nutt. in Fras., nom. subnud. The only descriptive term used in the statement given by Nuttall is

"bushy," and it is my opinion that this does not validly distinguish this species from *V. riparia* Michx., Fl. Bor. Amer. 2: 231. 1803. The Nuttall name is referable to the Michaux species.

89. *Yucca glauca* Nutt. in Fras. Catal. 1813. Nuttall adequately described this species which was later named *Y. angustifolia* Pursh, Fl. Am. Sept. 1: 227. 1814. Later, however, "Nuttall did not take up his own name, but chose that of Pursh, and made no reference to the earlier name in Fraser's Catalogue. The original description is: "Leaves narrow, and filiferous; capsule dry, coriaceous, and large as that of *Y. gloriosa*."

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#### LITERATURE CITED

- BARNEBY, R. C. 1952. "A revision of the North American species of *Oxytropis* DC." Proc. Calif. Acad. Sci. IV: 7: 177-312.
- . 1964. "Atlas of North American *Astragalus*." Mem. New York Bot. Gard. 13: 1-1188.
- BEETLE, D. E. 1944. "A monograph of the North American species of *Fritillaria*." Madroño 7: 133-159.
- CLARK, R. B. 1942. "A revision of the genus *Bumelia* in the United States." Ann. Mo. Bot. Gard. 29: 155-182.
- CRONQUIST, A. 1945. "Studies in the Sapotaceae III. *Dipholis* and *Bumelia*." Journ. Arn. Arb. 26: 435-471.
- . 1957. "Fraser's Catalogue again." Rhodora 59: 100
- , D. D. KECK, & B. MAGUIRE. 1956. "Validity of Nuttall's names in Fraser's Catalogue." Rhodora 58: 23-24.
- GLEASON, H. A. & A. CRONQUIST. 1963. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. Princeton, New Jersey.
- GOULD, F. J. 1942. "A systematic treatment of the genus *Camassia* Lindl." Am. Midl. Nat. 28: 712-742.

- GRAUSTEIN, J. E., editor. 1951. "Nuttall's travels into the old Northwest. An unpublished 1810 diary." *Chronica Botanica* 14: no. ½: 1-88.
- . 1956. "Nuttall's quarrel with Pursh." *Rhodora* 58: 20-22.
- . 1967. *Thomas Nuttall, Naturalist. Explorations in America. 1808-1841.* Harvard Univ. Press, Cambridge.
- GREENE, E. L. 1890. "Reprints of Fraser's Catalogue." *Pittonia* 2: 114-119.
- HALL, H. M. 1928. "The genus *Haplopappus*." *Carn. Inst. Wash. Publ.* 389: 1-391.
- HERMANN, F. J. 1960. "Vetches in the United States — native, naturalized, and cultivated." *U.S.D.A. Agric. Handb.* 168: 1-84.
- HITCHCOCK, A. S., 2nd Ed. rev. by A. CHASE. 1951. "Manual of the grasses of the United States." *U. S. Dept. Agric. Miscell. Publ.* 200.
- JACKSON, B. D. 1895. *Index Kewensis . . . .* London.
- LANJOUW, J., editor. 1966. *International Code of Botanical Nomenclature.* Utrecht.
- MATHIAS, M. & L. CONSTANCE. 1944. "Umbelliferae." *North Amer. Flora* 28B: 43-160.
- MUNZ, P. A. 1965. "Onagraceae." *N. Am. Flora, Series II*: 5. 1-278.
- NUTTALL, T. 1813. *A catalogue of new and interesting plants, collected in Upper Louisiana and principally on the River Missouri, North America.* London. Prior August 1813. Copy at the Philadelphia Academy of Natural Sciences; reprinted in Greene (1890).
- . 1817. "Observations on the genus *Eriogonum*, and the Natural Order Polygonaceae of Jussieu." *Journ. Phil. Acad.* 1: 24-31, 33-37.
- . 1818. *The genera of North American plants . . . .* Philadelphia. In two volumes.
- . 1834. "A catalogue of a collection of plants made chiefly in the valleys of the Rocky Mountains or Northern Andes, towards the sources of the Columbia River, by Mr. Nathaniel B. Wyeth, and described by T. Nuttall." *Journ. Acad. Nat. Sci.* 7: 5-60.
- . 1840. "Descriptions of new species and genera of plants in the natural order Compositae . . . ." *Trans. Amer. Phil. Soc. n.s.* 7: 283-356.
- OWNBY, M. 1940. "Monograph of the genus *Calochortus*." *Ann. Mo. Bot. Gard.* 27: 371-560.

- PENNELL, F. W. 1936. "Travels and scientific collections of Thomas Nuttall." *Bartonia* 18: 1-51.
- PURSH, F. 1814. *Flora Americae Septentrionalis* . . . . London. In two volumes.
- RYDBERG, P. A. 1898. "North American Potentilleae." *Mem. Dept. Bot. Col. Univ.* 1: 1-223 with 112 plates.
- 1908. "Rosaceae." *North Amer. Flora* 22: 239-388.
- SHINNERS, L. H. 1949. "The genus *Dalea* (including *Petalostemum*) in North-central Texas. *Field & Lab.* 17: 85-89.
- 1955. "Non-validity of Nuttallian names in Fraser's Catalogue." *Rhodora* 57: 290-293.
- 1956. "Nuttall not the author of Fraser's Catalogue." *Rhodora* 58: 281-289.
- THEOBALD, W. L. 1966. "The *Lomatium dasycarpum* - *mohavense* - *foeniculaceum* complex." *Brittonia* 18: 1-18.
- WHERRY, E. A. 1947. "A key to the eastern North American lilies." *Bartonia* 24: 5-8.